

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – < 4,
BaO	> 2.5 – 6,
with SrO + BaO	> 3, and
ZnO	0 – 0.5,

and essentially no alkali oxides.

3. (Amended) An aluminoborosilicate glass according to Claim 1, containing at most 5% by weight MgO based on oxide.

4. (Amended) An aluminoborosilicate glass according to Claim 1, containing at least 60% by weight SiO₂ based on oxide.

5. (Amended) An aluminoborosilicate glass according to Claim 1, containing more than 11% by weight MgO, CaO, SrO and BaO together based on oxide.

6. (Amended) An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – 1.5,
BaO	> 1.5 – 6,
with SrO + BaO	> 3,
ZnO	0 – < 2,
ZrO ₂	0 – 2,
TiO ₂	0 – 2,
With ZrO ₂ + TiO ₂	0 – 2,
As ₂ O ₃	0 – 1.5,
Sb ₂ O ₃	0 – 1.5,
SnO ₂	0 – 1.5,
CeO ₂	0 – 1.5,

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Cont

Cl⁻ 0 - 1.5,
F⁻ 0 - 1.5,
SO₄²⁻ 0 - 1.5, and
Wherein As₂O₃ + Sb₂O₃ + SnO₂ + CeO₂ + Cl⁻
+ F⁻ + SO₄²⁻ 0 - 1.5,

and essentially no alkali oxides.

10. (Amended) An aluminoborosilicate glass according to claim 1, containing at least 5% by weight CaO based on oxide.

11. (Amended) An aluminoborosilicate glass according to claim 1, containing > 7 to ≤ 11% by weight B₂O₃ based on oxide.

12. (Amended) An aluminoborosilicate glass according to claim 1, containing > 2.5% to ≤ 5% by weight BaO based on oxide.

13. (Amended) An aluminoborosilicate glass according to claim 1, containing more than 3% by weight SrO and BaO together based on oxide.

14. (Amended) An aluminoborosilicate glass according to claim 1, containing up to 0.5% by weight ZnO based on oxide.

15. (Amended) An aluminoborosilicate glass according to claim 1, containing up to 1.5% by weight ZnO based on oxide.

16. (Amended) An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO₂ > 58 - 65,
B₂O₃ > 6 - 11.5,
Al₂O₃ > 14 - 20,
MgO > 3 - 6,
CaO > 4.5 - 10,
SrO 0 - 1.5,
BaO > 1.5 - 6,
with SrO + BaO > 3,

ZnO
ZrO₂
TiO₂

0 - < 2,
≤ 0.5, and
≤ 0.5,

and essentially no alkali oxides.

17. (Amended) An aluminoborosilicate glass according to Claim 2, containing at most 5% by weight MgO based on oxide.

18. (Amended) An aluminoborosilicate glass according to Claim 2, containing at least 60% by weight SiO₂ based on oxide.

19. (Amended) An aluminoborosilicate glass according to Claim 2, containing more than 11% by weight based on oxide MgO, CaO, SrO and BaO is greater together.

20. (Amended) An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO ₂	0 - 2,
TiO ₂	0 - 2,
with ZrO ₂ + TiO ₂	0 - 2,
As ₂ O ₃	0 - 1.5,
Sb ₂ O ₃	0 - 1.5,
SnO ₂	0 - 1.5,
CeO ₂	0 - 1.5,
Cl ⁻	0 - 1.5,
F ⁻	0 - 1.5,
SO ₄ ²⁻	0 - 1.5, and

Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl^-$
 $+ F^- + SO_4^{2-}$

0 – 1.5,

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Cont and essentially no alkali oxides.

24. (Amended) An aluminoborosilicate glass according to claim 2, containing at least 5% by weight CaO based on oxide.

25. (Amended) An aluminoborosilicate glass according to claim 2, containing > 7 to ≤11% by weight B_2O_3 based on oxide.

93 26. (Amended) An aluminoborosilicate glass according to claim 2, containing > 2.5% to ≤5% by weight BaO based on oxide.

27. (Amended) An aluminoborosilicate glass according to claim 2, containing more than 3% by weight SrO and BaO together based on oxide.

28. (Amended) An aluminoborosilicate glass according to claim 2, containing up to 0.5% by weight ZnO based on oxide.

29. (Amended) An aluminoborosilicate glass according to claim 2, containing up to 1.5% by weight ZnO based on oxide.

30. (Amended) An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO_2	> 58 – 65,
B_2O_3	> 6 – 11.5,
Al_2O_3	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – < 4,
BaO	> 2.5 – 6,
with SrO + BaO	> 3,
ZnO	0 – 0.5,
ZrO_2	≤0.5, and

TiO₂

≤0.5,

and essentially no alkali oxides.

- Q3 31. (Amended) An aluminosilicate glass according to claim 2, containing up to 3% by weight SrO based on oxide.

36. (Amended) An alkali-free aluminoborosilicate glass containing less than 1500 ppm alkali metal oxides and consisting essentially of by weight % based on oxide,

Q4

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – 1.5,
BaO	> 1.5 – 6,
with SrO + BaO	> 3, and
ZnO	0 – < 2,

and essentially no alkali oxides.

37. (Amended) An alkali-free aluminoborosilicate glass containing less than 1500 ppm alkali metal oxides and consisting essentially of by weight % based on oxide,

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – < 4,
BaO	> 2.5 – 6,
with SrO + BaO	> 3, and
ZnO	0 – 0.5,

and essentially no alkali oxides.

Please enter the following new claims:

--38. An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

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SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - < 2,

and essentially no alkali oxides.

39. An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - 0.5,

and essentially no alkali oxides.

40. An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3,

ZnO	0 - < 2,
ZrO ₂	0 - 2,
TiO ₂	0 - 2,
With ZrO ₂ + TiO ₂	0 - 2,
As ₂ O ₃	0 - 1.5,
Sb ₂ O ₃	0 - 1.5,
SnO ₂	0 - 1.5,
CeO ₂	0 - 1.5,
Cl ⁻	0 - 1.5,
F ⁻	0 - 1.5,
SO ₄ ²⁻	0 - 1.5, and
Wherein As ₂ O ₃ + Sb ₂ O ₃ + SnO ₂ + CeO ₂ + Cl ⁻ + F ⁻ + SO ₄ ²⁻	0 - 1.5,

and essentially no alkali oxides.

41. An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - < 2,
ZrO ₂	≤ 0.5, and
TiO ₂	≤ 0.5,

and essentially no alkali oxides.

42. An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,

ZnO	0 – 0.5,
ZrO ₂	0 – 2,
TiO ₂	0 – 2,
with ZrO ₂ + TiO ₂	0 – 2,
As ₂ O ₃	0 – 1.5,
Sb ₂ O ₃	0 – 1.5,
SnO ₂	0 – 1.5,
CeO ₂	0 – 1.5,
Cl ⁻	0 – 1.5,
F ⁻	0 – 1.5,
SO ₄ ²⁻	0 – 1.5, and
Wherein As ₂ O ₃ + Sb ₂ O ₃ + SnO ₂ + CeO ₂ + Cl ⁻ + F ⁻ + SO ₄ ²⁻	0 – 1.5,

and essentially no alkali oxides.

43. An alkali-free aluminoborosilicate glass consisting essentially of by weight % based on oxide,

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – < 4,
BaO	> 2.5 – 6,
with SrO + BaO	> 3,
ZnO	0 – 0.5,
ZrO ₂	≤ 0.5, and
TiO ₂	≤ 0.5,

and essentially no alkali oxides.

44. An alkali-free aluminoborosilicate glass consisting of less than 1500 ppm alkali metal oxides and consisting of by weight % based on oxide,

SiO ₂	> 58 – 65,
B ₂ O ₃	> 6 – 11.5,
Al ₂ O ₃	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – 1.5,
BaO	> 1.5 – 6,
with SrO + BaO	> 3, and

ZnO

0 - < 2,

and essentially no alkali oxides.

45. An alkali-free aluminoborosilicate glass consisting of less than 1500 ppm alkali metal oxides and consisting of by weight % based on oxide,

SiO ₂	> 58 - 65,
B ₂ O ₃	> 6 - 11.5,
Al ₂ O ₃	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - 0.5,

and essentially no alkali oxides.

46. An aluminoborosilicate glass according to claim 40 containing Sb₂O₃.

47. An aluminoborosilicate glass according to claim 42 containing Sb₂O₃.

48. An aluminoborosilicate glass according to claim 1 that has a density of less than 2.6 g/cm³. --